DRAFT
ENVIRONMENTAL ASSESSMENT
NASELLE QUARRY
QUARRY DEVELOPMENT
PACIFIC COUNTY, WASHINGTON

INTRODUCTION

The Naselle Quarry is an existing, but inactive quarry located in southwest Washington, approximately 25 miles northeast of the mouth of the Columbia River (MCR). It is located about 1-1/2 miles north of US Highway 101 on Clearwater Creek, in the SE ¼ NW ¼ Section 10, T11N, R10W, Willamette Meridian, Pacific County, Washington (Long Island 7-1/2 Minute USGS Quadrangle). The quarry is located on Weyerhaeuser property, but the U.S. Army Corps of Engineers (Corps) retains the rights to the rock. The access road to the quarry area trends northward along the east bank of the Naselle River from directly east of the US 101 Highway Bridge across the Naselle River. The location of the proposed project is shown on Figure 1. Initial work is planned for 2005 and the quarry could remain in use for an extended period of time, perhaps 20 years.

The quarry consists of a semi-circular quarry face that has been excavated into Naselle Ridge approximately 300 feet north of where Clearwater Creek bisects the ridge. The quarry face is about 200 feet across and varies from 40 to more than 90 feet in height. The quarry currently occupies an area of approximately 1.5 acres. A large diabase (type of rock) dike, which forms the core of the northwest-trending Naselle Ridge, is the rock formation exposed in the quarry. The Corps last used the quarry in 1946, when 69,000 tons of jettystone were produced for repairs to Jetty A near the MCR. It has also been used as a source of revetment rock for local small boat harbors. Overburden and decomposed waste rock depths at the present face vary from less than 20 to more than 60 feet. Jointing is also highly variable. This combination of extensive overburden and variable jointing may limit readily available large stones from the present quarry face. The quarry likely will be used mainly for extraction of smaller rock.

The Corps conducted reconnaissance and limited explorations within the immediate vicinity of the quarry during the summer of 2003. Explorations were necessary to determine if adequate reserves of large rock are available within the quarry limits. These investigations specifically helped identify the potential nature of the rock material, the limits of quarry development, locate areas of required tree removal prior to opening the quarry, areas of overburden storage and waste rock disposal, and identify any potential road relocations necessary to maximize the amount of quality stone to be produced. Explorations consisted of both geophysical investigations and core drilling. Geophysical investigations involved using seismic refraction techniques, which identified potential boundaries of overburden, weathered rock, and sound rock. This utilized a portable system requiring no tree or vegetation removal. Core drilling required the construction of a new access road along the ridgeline to gain access to the upper end of the quarry. Five core holes were drilled within the quarry floor and adjacent slopes to identify the nature of the rock material, and further identify the quarry limits. Based on the results of these

investigations, the Corps has decided to pursue quarry development with subsequent rock removal.

The Corps produced No Effect determinations for bald eagles, marbled murrelets, northern spotted owls and bull trout in compliance with the Endangered Species Act for initial geophysical explorations in 2003 and for quarry development described in this EA in 2004. A Categorical Exclusion in compliance with the National Environmental Policy Act was produced for geophysical explorations in 2003.

NEED AND PURPOSE FOR ACTION

The need and purpose for this action is to provide building materials to be used for repair of the MCR north and south jetties. The quarry is located in close proximity to the jetties and therefore minimizes hauling costs. Repair of critical trunk portions of the north and south jetties is necessary to prevent further deterioration and subsequent breaching of the jetties.

ALTERNATIVES

Proposed Action Alternative:

Site Preparation. Some site preparation to the surrounding area will be required prior to rock removal. Site preparation will need to be coordinated with the landowner, Weyerhaeuser. All aspects of this work will require large construction equipment using the area.

Tree removal. Weyerhaeuser will harvest all economically recoverable timber within the proposed limits of the quarry. This will involve only the quarry site, and along any additional access roads necessary for quarry development and rock removal. The maximum area proposed for final quarry limits is approximately 10 acres. Proposed stockpile and disposal sites are already cleared of timber. Figure 2 shows the tree cover present in the area.

Road Relocation. Replacement of the roads leading to and from the quarry will be required as rock removal progresses. The current quarry floor is at an approximate elevation of 250 feet, and all roads leading to and from the quarry would have to be rerouted to an elevation of approximately 170 feet. Access would have to be maintained during active quarry operation to the ridge behind the quarry and to the area east of Clearwater Creek. Approximately 4,000 to 5,000 feet of existing gravel road will need to be rerouted.

Overburden Removal and Storage. Overburden will need to be removed from the quarry site and stockpiled for reclamation efforts prior to any significant rock removal. Large construction equipment, consisting of bulldozers, excavators, and dump trucks will be required to remove the overburden material from the top of the rock body. Potential overburden storage areas have been identified in the general vicinity, as shown on Figure

2. The areas planned for overburden storage have been recently cleared of trees or support young growth western hemlock, and have gentle slopes, and would not create slope stability problems.

Waste Rock Disposal. Waste rock, consisting primarily of weathered diabase and unusable sandstone, would be disposed of in the same general areas as the overburden. It has been estimated that there is approximately 375,000 cubic yards of combined waste rock and overburden that will be produced over the life of the quarry.

Rock Removal. During actual quarry production, rock will require drilling and blasting to be able to separate it from the rock body. Rock removal may take place at any time of the year, but is most likely to be done during spring and summer months. Quarry production will take place during daylight hours. Various construction activities associated with production are listed below. Quarry limits are anticipated to be expanded from the existing 1.5 acres to approximately 10 acres. A plan view of the existing and proposed quarry limits is shown in Figure 3.

Drilling. Percussion drill rigs are required to drill holes for loading explosives for the blasting phase. Drill rigs are usually track-mounted to get to the location to be drilled. Drilling means is primarily pneumatic, creating approximately 75 dBA noise at distance of 100 feet from the source. Length of time drilling depends on the number and depth of holes to be drilled, and the production schedule.

Blasting. Blasting patterns and amount of explosives used will be designed to produce the largest sized stones possible. The size of the area to be blasted, and amount of explosives used directly affects the amount of noise produced. An average shot may produce noise on the order of 120 dBA at a distance of 200 feet from the source. It is anticipated that blasting would occur no more than a couple of times during a week and will occur during daylight hours.

Loading and Removal. Equipment required for removing shot rock includes heavy construction equipment consisting of large front-end loaders, cranes, and dump trucks. These will operate only after a blast has occurred. Rock will be removed from the quarry site to designated stockpile areas, located both in the immediate area, as well as offsite.

Reclamation. A reclamation plan is currently in production. The cleared area will be planted primarily with red alder. Slopes and benches at the quarry and disposal sites, disposal site locations, and road realignment locations are being coordinated with the Washington Department of Natural Resources. Reclamation would occur immediately after quarry development actions as they occur.

No Action Alternative:

Under the No Action Alternative, no development of the quarry would occur and the property would remain unused and no timber would be immediately cut.

AFFECTED ENVIRONMENT

The forested area surrounding the quarry is comprised primarily of western hemlock, with lesser numbers of western red cedar and red alder. Midstory and understory vegetation is moderately dense and includes a variety of species including sword fern, huckleberry, and blackberry. This area was planted with western hemlock by Weyerhaeuser in the early 1960's. Clearwater Creek occurs in close proximity to Naselle quarry but would not be affected, as a 200-foot wide riparian buffer would be maintained during development of the quarry. Riparian vegetation along Clearwater Creek includes such overstory species as red alder and Oregon ash. Midstory and understory vegetation is dense and includes a variety of species including dogwood and thimbleberry. The area in general is remote and provides habitat for a variety of migrant, nesting, wintering, and permanent resident birds and a variety of mammals including game species such as black-tailed deer. Topographical diversity on the site provides for upland habitats supporting primarily coniferous species as well as riparian habitats along Clearwater Creek and smaller drainages that support mainly broadleaf species. Open areas are provided by recent clearcuts.

Federally-listed species including bull trout, marbled murrelet, and northern spotted owl have been noted in the general vicinity but not near the project: One bull trout was noted in February of 2002 about 30 miles up the Willapa River (the only record for this watershed), marbled murrelets have been noted over a mile northeast of the project and east of Highway 101 in Section 2, and the nearest northern spotted owl pair occurs over two miles northeast of the project and east of Highway 101 in Section 1 (personal communication with the Service on October 22, 2004). Rock would be hauled out of the quarry to the south and not near the above-mentioned marbled murrelet and northern spotted owl nesting areas. Bald eagles could occur in the general vicinity but only as wintering birds. The nearest bald eagle nest is located about 1.8 miles south of the project site and about 0.5 mile from Highway 101 and no winter roosting areas are present in the vicinity of the quarry (Washington State Status Report for the Bald Eagle, Washington Department of Fish and Wildlife, 2001; and personal communication with Washington Department of Fish and Wildlife on October 29, 2004). No fishes under the jurisdiction of NOAA Fisheries occur in the vicinity of the proposed project (personal communication with NOAA Fisheries on October 25, 2004) and work will not occur within 200 feet of Clearwater Creek.

ENVIRONMENTAL CONSEQUENCES

Proposed Action Alternative:

The proposed action alternative will result in the logging of approximately 10 acres of primarily western hemlock forest in order to develop the quarry. Stockpiling of greater than 300,000 cubic yards of overburden material will occur over an approximately 5-acre area that is partly recently clearcut and partly covered with young (approximately 10-

year) stand of western hemlock and western red cedar. Over the life of the quarry, which could be 20 years or more, over a million cubic yards of rock could be extracted.

No Action Alternative:

No environmental consequences would result under the No Action Alternative.

COORDINATION

This Environmental Assessment (EA) was prepared to address the requirements of the National Environmental Policy Act and the draft was issued for 30-day public and agency review on November 2, 2004 under Public Notice CENWP-PM-E-04-12. The draft EA was sent for review to the following government agencies and local property owners with properties in Township 11, Range 10, Sections 10 and 4:

NOAA Fisheries
U.S. Fish and Wildlife Service
Washington Department of Natural Resources
Washington Department of Ecology
Washington Department of Fish and Wildlife
Pacific County Commissioners
Weyerhaeuser
Dennis Wilson
Douglas Kess and Karen Spackman
Eugene and Guisselle Carlson
Thomas Graves
John and Roy Herrold
Coast Seafoods Company
Charles Wilson

The draft EA was also posted on the Corps' web page and published in newspapers.

CONSULTATION REQUIREMENTS

a. Clean Air Act of 1970, as amended: The Proposed Action Alternative would not affect clean air standards.

b. Clean Water Act of 1977 (33 U.S.C. 1344): No wetlands would be impacted. Therefore, a 404b1 evaluation and Washington Department of Ecology water quality certificate are not required.

c. Coastal Zone Management Act: Not applicable.

d. Endangered Species Act of 1973, as amended: No Effect determinations were made for bald eagles, marbled murrelets, northern spotted owls, and bull trout,

all listed as Threatened under the Endangered Species Act. The U.S. Fish and Wildlife Service was informed of these determinations.

e. Fish and Wildlife Coordination Act: The Proposed Action Alternative is been coordinated with the U.S. Fish and Wildlife Service.

f. Marine Protection, Research, and Sanctuaries Act of 1972, as amended: Not applicable.

g. Natural Historic Preservation Act 36CFR800: The proposed action is being coordinated with the State of Washington Historic Preservation Office (SHPO).

h. Executive Order 11988, Flood Plain Management, 24 May 1977: The Proposed Action Alternative would have no effect on flood plains.

i. Executive Order 11990, Protection of Wetlands: The Proposed Action Alternative would have no effect on wetlands.

j. Analysis of Impacts on Prime and Unique Farmlands: Not applicable.

k. Comprehensive Environmental Response, Compensation, and Liability (CERCLA) and Resource Conservation and Recovery Act (RCRA). There is no indication that any hazardous, toxic and radioactive waste (HTRW) are in the vicinity. Presence of HTRW would be responded to within the requirements of the law and Corps regulations and guidelines.

In addition to these federal consultation requirements, the following permits and clearances will be obtained:

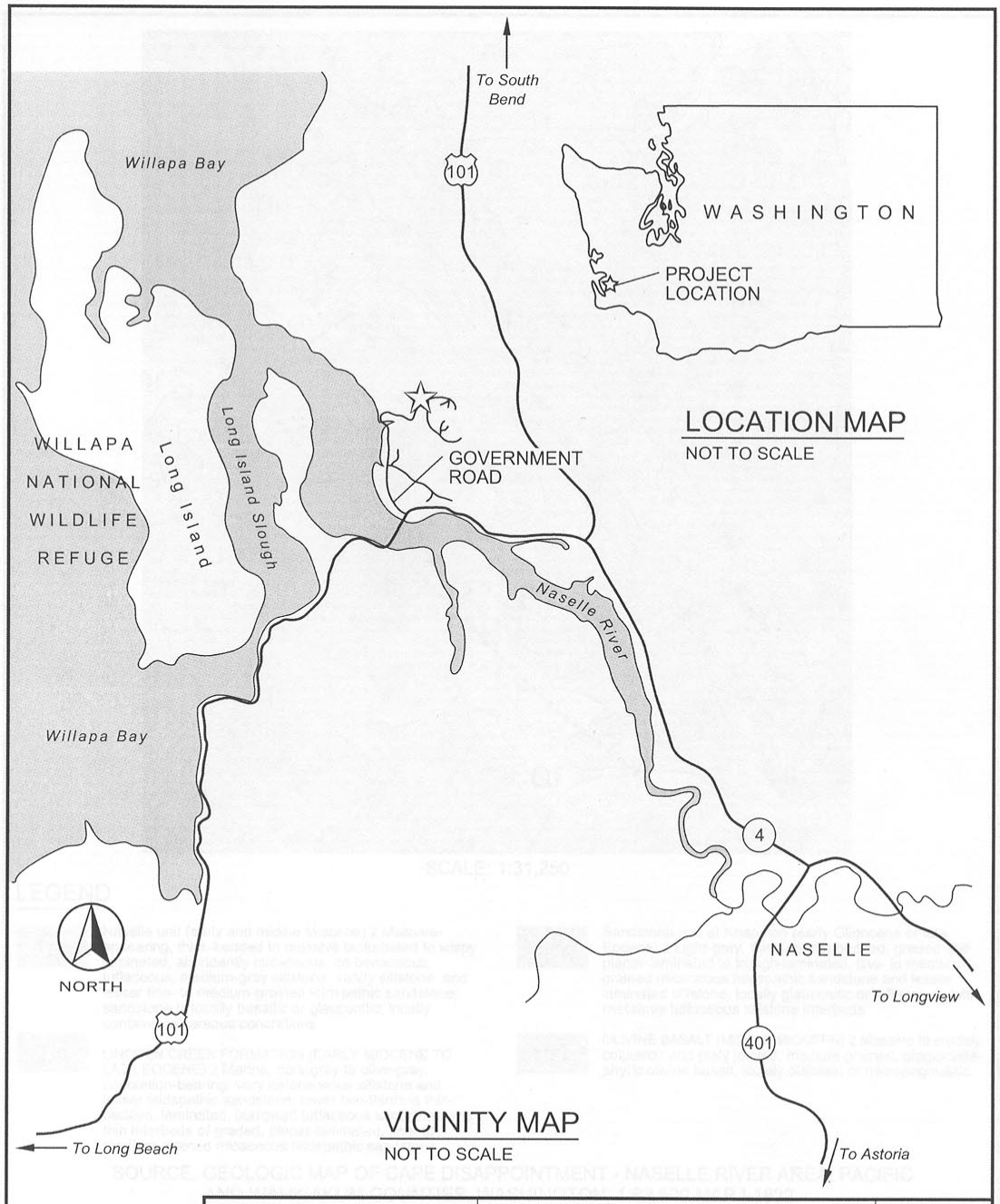
a. Reclamation Permit (to be issued by the Washington Department of Natural Resources)

b. Forest Practices Class 4 Conversion Permit (to be issued by Washington Department of Natural Resources)

c. State Environmental Policy Act clearance (to be obtained from the Washington Department of Natural Resources)

d. Sand and Gravel Permit (to be issued by the Washington Department of Ecology)

e. Short-term Water Use Permit (to be issued by the Washington Department of Ecology if necessary)


To South Bend
101
Willapa Bay
WASHINGTON
PROJECT LOCATION
LOCATION MAP
NOT TO SCALE
WILLAPA NATIONAL WILDLIFE REFUGE
Long Island
Long Island Slough
GOVERNMENT ROAD
Naselle River
Willapa Bay
4
NASELLE
To Longview
NORTH
101
401
VICINITY MAP
NOT TO SCALE
To Long Beach
To Astoria
CORNFORTH CONSULTANTS
10250 S.W. Greenburg Road, Suite 111
Portland, Oregon 97223
Phone 503-452-1100 Fax 503-452-1528
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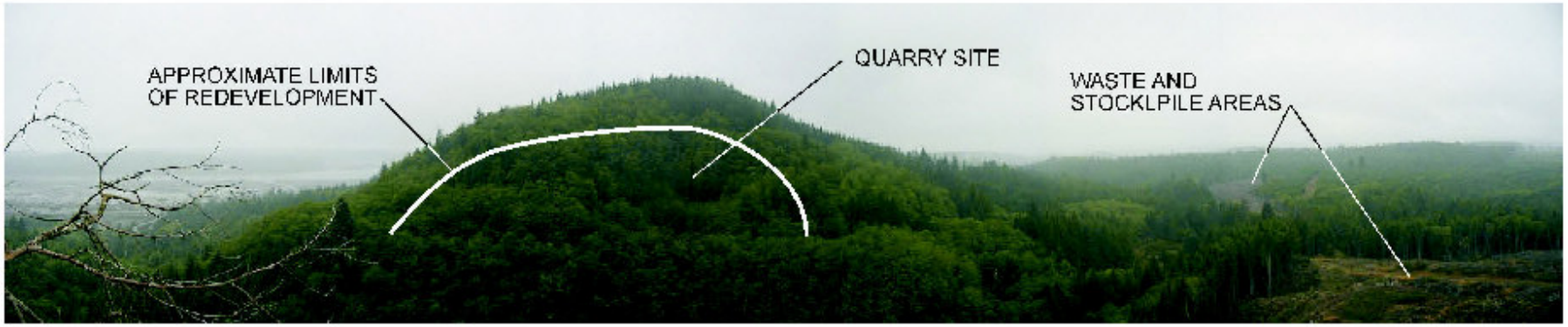
LOCATION MAP
GEOTECHNICAL RECONNAISSANCE
NASELLE QUARRY - NASELLE, WASHINGTON
NOV 2003
PROJ. 1539
FIG. 1



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SITE PHOTOGRAPH

GEOTECHNICAL RECONNAISSANCE
NASELLE QUARRY - NASELLE, WASHINGTON

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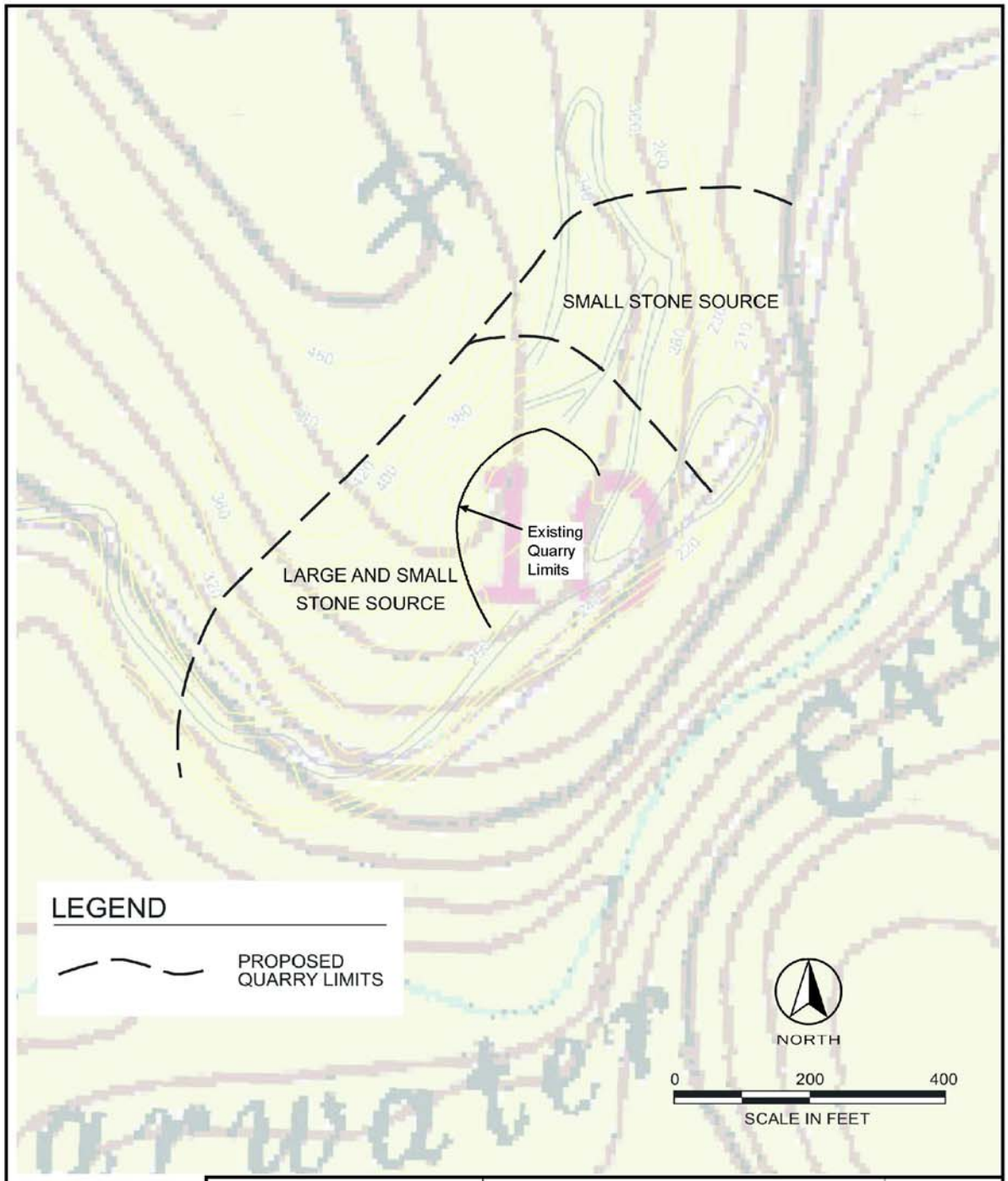
Fig 2



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PRELIMINARY PLAN OF PROPOSED REDEVELOPED QUARRY LIMITS

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FIG. 9

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